

Fort Mifflin, Powder Magazines
Mud Island
Marine and Penrose Ferry Road
Philadelphia
Philadelphia County
Pennsylvania

HABS No. PA-1225-G

HABS
PA
51-PHILA
111 G-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Reduced Copies of Measured Drawings

HISTORIC AMERICAN BUILDINGS SURVEY HABS No. PA-1225 G a

FORT MIFFLIN WEST MACAZINE

Location: East of northwest sally port of Fort Mifflin, Mud Island, Marine and Penrose Ferry Roads, Philadelphia, Philadelphia County, Pennsylvania.

Present Owner: City of Philadelphia.

Present Use: Historic site museum.

Significance: The earth-covered west magazine, built about 1866, contains fine examples of brick barrel vaulting.

PART I. HISTORICAL INFORMATION

The erection of this magazine was proposed in 1864 (Brewerton to Delafield, August 3, 1864, B-566, RG 77, NAB), and construction was underway in the summer of 1866 (Stewart to Delafield, July 5, 1866, S-9980, RG 77, NAB). Stewart's detailed drawings of 1868 include this structure and label it "New Magazine" (CGM #92). For additional information, see Fort Mifflin History (PA-1225).

Prepared by Alison K. Hoagland
Historian
Historic American Buildings
Survey
Fall, 1979.

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: The west magazine, a large brick barrel-vaulted space with an L-shaped entrance corridor, is covered with earth and vegetation.
2. Condition of fabric: Good.

B. Description of Exterior:

1. Over-all dimensions: The main space is 15'-43'.
2. Foundations: Assumed to be brick.

3. Wall construction, finish and color: An earth mound covered with vegetation conceals the brick vaults of the structure. The ridge of the mound rises from the parade level approximately 20'.
4. Structural system: Brick barrel vaults.
5. Porches: The entrance doorway heads a slate and stone slab paved areaway within splayed, stepped brick retaining walls which are 1'-5" thick and laid in common bond. A pair of flat gneiss lintel stones cantilevers 9" over the doorway and spans the retaining walls.
6. Chimneys: Two brick vents with stone caps extend above the mound at the southeast.
7. Doorways and doors: The northeast entrance is a semicircular arched doorway with a rowlock arch. A door, constructed of heavy vertical boards, is hung with wrought iron strap hinges on pintles located at gneiss blocks set into the jamb. On the opposite jamb a similar block forms a keeper for the rim lock mounted on the interior of the door.
8. Roof: Earth mound.

Description of Interior:

1. Floor plan: A 3' wide passageway leads 14'7" toward the main room, then perpendiculrly 16', then 5'-4" into the main room, which is one large space.
2. Flooring: The main space has a concrete floor laid off in squares. Slate paves the corridor.
3. Wall and ceiling finish: Laid in English bond, the brick barrel vault in the main space extends from the spring line 2'0" above the floor to a total height of 9'-6 1/4". Traces of whitewash remain. The walls of the corridor are laid in English bond, though the barrel vaults are laid in running bond.

In the middle passage of the corridor, the vaulting is stepped down from a 9'-3 1/2" height to 7'-3 1/4" height near the outside entrance passage, which extends 3'-1" beyond the middle passage vault and is groin vaulted. A niche is located in the walling of the outside entrance passage opposite the vault to the middle passage. There is no evidence of whitewash in the corridor.

4. Doorways and doors: Though no doors remain, rebates and gneiss blocks in the brick work of the jambs at each end of the inner passage into the main space indicate that doors were originally hung at interior openings.
5. Decorative features and trim: Above the segmentally arched barrel vault of the inner passage is a small semicircular vaulted opening which is connected to a vertical ventilation shaft.
6. Hardware: Pintles remain at the interior door jambs.

D. Site and Surroundings:

The major axis of the mound and the vault is parallel to and between the northwest rampart and the Commandant's House (HABS No. PA-1225-C). The magazine lies immediately inside of and is adjacent to the terreplein of the rampart with the entrance facing the Officers' Quarters (HABS No. PA-1225-F). Opening through the rampart at the west corner of the magazine mound is the Northwest Sally Port or postern. A brick drain extends from the Officers' Quarters around the magazine to a culvert under the northwest rampart.

Prepared by Rodd L. Wheaton
Architect
Historic American Buildings
Survey
Spring, 1974.

PART III. PROJECT INFORMATION

The Fort Mifflin projects of the Historic American Buildings Survey (HABS) were carried out during the summers of 1969 and 1970 with grants from the Haas Community Funds in cooperation with the Philadelphia Historical Commission, the Independence National Historical Park, and the Shackamaxon Society, Inc. The projects were under the direction of James C. Massey, Chief, HABS. The 1969 survey team was supervised by R. Michael Schneider (Texas A & M University) with student assistant architects Allan H. Steenhusen (Iowa State University), Bruce V.A. Bonacher (Rensselaer Polytechnic Institute), and Malcolm Heard, Jr. (Tulane University). The 1970 survey team was supervised by Allan H. Steenhusen (Iowa State University) with architect Ronald B. Tjerandsen (University of Washington) and student assistant architect John T. Shumate (Carnegie-Mellon University). The drawings were completed in 1971 by HABS architect Allan H. Steenhusen and student assistant architect Tim Wolosz (University of Cincinnati). The drawings were edited in 1972-73 under the direction of John C. Poppeliers, Chief, HABS, by HABS architect K. Barry Peckham (University of Cincinnati). Historian for the project was A.C. (Gus) Hamblett until 1972. The data was then edited by several members of the HABS staff, including Rodd L. Wheaton, John A. Burns, and Philip Hamp, and completed by Alison K. Hoagland in 1979.

FORT MIFFLIN TORPEDO CASEMATE (East Magazine)

Location: In center demibastion of southeast scarp of Fort Mifflin, Mud Island, Marine and Penrose Ferry Roads, Philadelphia, Philadelphia County, Pennsylvania.

Present Owner: City of Philadelphia.

Present Use: Historic site museum.

Significance: Built ca. 1875, the earth-covered torpedo casemate is a fine example of concrete barrel vaulting.

PART I. HISTORICAL INFORMATION

The 1875 annual report noted, "The construction of the torpedo casemate has commenced" (RG 77, NAB), and the casemate first appeared on an 1886 map (CGM #118). Despite its name, the torpedo casemate is similar to the west magazine, differing primarily in its concrete construction, as opposed to the brick of the older structure. For additional information, see Fort Mifflin History (PA-1225).

Prepared by Alison K. Hoagland
Historian
Historic American Buildings
Survey
Fall, 1979.

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: The Torpedo Casemate is a short rectangular space, with a jogged entrance corridor.
2. Condition of fabric: Good.

Description of Exterior:

1. Over-all dimensions: The main space is 12' x 16'.
2. Foundations: Concrete.

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3. Wall construction, finish and color: The concrete vaulting, covered with an earth mound overgrown with vegetation, extends over the southeast rampart's terreplein and parapet and onto the exterior slope.
4. Structural system: Concrete barrel vaults.
5. Porches: At the outside entrance, parallel, stepped brick retaining walls extend from the walling surrounding the entrance doorway. A cantilevered gneiss lintel, which is raked, spans the walls. The areaway is paved with brick laid in a herringbone pattern.
6. Chimneys: On the south side of the mound are two vents.
7. Openings:
 - a. Doorways and doors: The entrance is a semicircular arched doorway with a rowlock arch and a stone threshold. A door, constructed of heavy vertical boards, is hung with wrought iron strap hinges on pintles located at gneiss blocks set into the jamb. On the opposite jamb a similar block forms a keeper.
8. Roof: Earth mound.

Description of Interior:

1. Floor plan: A 15'-5" corridor leads to a perpendicular short corridor which leads to another perpendicular short corridor leading to the rectangular main room.
2. Flooring: Concrete.
3. Wall and ceiling finish: The poured concrete walls and vaults have a form-work texture and are whitewashed.

4. Special features: Centered in the floor of the main space is a 5'-5" deep pit which is concrete lined. On the northwest wall, centered between the opening of the corridor vault and the north corner, is a small, rectangular niche set near the floor level. A similar niche is located in the northwest wall of the middle passage of the corridor opposite the inner passage.

D. Site and Surroundings:

The East Magazine is built in the angle of the central demibastion of the southeast rampart, approximately in line with the northwest end elevation of the Arsenal (HABS No. PA-1225-A). Nearly adjacent to the interior slope of the salient angle of the rampart, the northwest entrance faces the Commandant's House (HABS No. PA-1225-C) across the parade.

Prepared by Rodd L. Wheaton
Architect
Historic American Buildings
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Spring, 1974.

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The drawings were edited in 1972-73 under the direction of John C. Poppeliers, Chief, HABS, by HABS architects Rodd L. Wheaton and John A. Burns with student assistant architect K. Barry Peckham (University of Cincinnati). Historian for the project was A.C. (Gus) Hamblett until 1972. The data was then edited by several members of HABS staff, including Rodd L. Wheaton, John A. Burns, and Philip Hamp, and completed by Alison K. Hoagland in 1979.